ELSEVIER

Nuclear Engineering and Design 148 (1994) 521–523

Nuclear Engineering and Design

Contents of Volume 148

CONTENTS OF ISSUE 148(1)

Extended and Updated Selected Papers from the 11th International Conference on Structural Mechanics in Reactor Technology (SMiRT-11), Division C, Tokyo, Japan, August 18–23, 1991

Preface, *K. Kussmaul* ix

Effects of recrystallization and Nb additions on texture and mechanical anisotropy of Zircaloy, *K.L. Murty, R. Jallepalli and S.T. Mahmood* 1

Creep anisotropy of Zircaloy-2 cladding during irradiation, *S.H. Shann and L.F. Van Swam* 17

Study on buckling of square tubes under bending loads, *H. Nagashima, K. Kokubo and T. Hatsuda* 27

FEMAXI-IV: a computer code for the analysis of thermal and mechanical behavior of light water reactor fuel rods, *T. Nakajima, H. Saito and T. Osaka* 41

Development of a 3-D FBR fuel bundle-to-duct interaction analysis code MARSE, *K. Itoh, H. Kinjo and Y. Mimura* 53

Regular Papers

Evaluation of aseismic integrity in HTTR core-bottom structure. I. Aseismic test for core-bottom structure, *T. Iyoku, M. Futakawa and M. Ishihara* 71

Evaluation of aseismic integrity in HTTR core-bottom structure. II. Vibrational characteristics of keyed graphite components, *M. Futakawa, T. Iyoku, H. Shirai, S. Takada and M. Ishihara* 83

Evaluation of aseismic integrity in HTTR core-bottom structure. III. Structural integrity of core support post component, *M. Ishihara, T. Iyoku and M. Futakawa* 91

An advanced ultrasonic system for BWR vessel weld inspection, *E.R. Dykes* 101

Classification of flooding data according to type of tube-end geometry, *J.H. Jeong and H.C. No* 109

Numerical simulation of natural circulation experiments conducted at the IIST facility, *Y.-M. Ferng and C.-H. Lee* 119

Instructions to contributors 129

CONTENTS OF ISSUES 148(2–3)

Preface, *T.G. Theofanous* xi

Implementation of bleed and feed procedures in Siemens PWRs, *H. Roth-Seefrid, A. Feigel and H.-J. Moser* 133
Accident management strategy in Sweden — implementation and verification, *G. Löwenhielm, A. Engqvist and R. Espefält* 151
Accident management for French PWRs, *Y. Cornille* 161
A consistent approach to severe accident management, *H. Tuomisto and T.G. Theofanous* 171
Assessment of two BWR accident management strategies, *S.A. Hodge and M. Petek* 185
Fission-product release during accidents – an accident management perspective, *C.E.L. Hunt, D.S. Cox and F.C. Iglesias* 205
Experimental and analytical studies of boric acid concentrations in a VVER-440 reactor during the long-term cooling period of loss-of-coolant accidents, *J. Tuunanen, H. Tuomisto and P. Raussi* 217
Assessing information needs and instrument availability for a pressurized water reactor during severe accidents, *D.J. Hanson, W.C. Arcieri and L.W. Ward* 233
Materials chemistry and transport modeling for severe accident analyses in light-water reactors. I: External cladding oxidation, *D.R. Olander* 253
Materials chemistry and transport modeling for severe accident analyses in light-water reactors. II: Gap processes and heat release, *D.R. Olander* 273
Heat transfer from a high temperature safety rod placed in a perforated guide tube and surrounded by an array of cold tubes, *K.O. Pasamehmetoglu and C. Unal* 293
Evaluation of the hydrogen explosion hazard, *S.B. Dorofeev, A.S. Kochurko, A.A. Efimenko and B.B. Chaivanov* 305
Rapid quenching of molten lithium–aluminum jets in water, *G.A. Greene, D.H. Cho, M.L. Hyder, D.K. Allison and P.G. Ellison* 317
Overview of NRC sponsored LWR lower head failure research program, *J.L. Rempe and T.J. Walker* 327
High-temperature creep and tensile data for pressure vessel steels SA533B1 and SA508-CL2, *G.L. Thinnes, G.E. Korth, S.A. Chavez and T.J. Walker* 343
High-temperature tensile and creep data for Inconel 600, 304 stainless steel and SA106B carbon steel, *S.A. Chavez, G.E. Korth, D.M. Harper and T.J. Walker* 351
A simpler approach for predicting LWR vessel failure during severe accident conditions, *J.L. Rempe, G.L. Thinnes and S.A. Chavez* 365
Local creep rupture failure modes on a corium-loaded lower head, *R.J. Witt* 385
Finite element analyses of a BWR vessel and penetration under severe accident conditions, *S.A. Chavez and J.L. Rempe* 413
Measurement and modeling of average void fraction, bubble size and interfacial area, *G. Kocamustafaogullari, W.D. Huang and J. Razi* 437
Two-phase flow scaling laws for a simulated BWR assembly, *R. van de Graaf, T.H.J.J. van der Hagen and R.F. Mudde* 455
Flow redistribution due to void drift in two-phase flow in a multiple channel consisting of two subchannels, *M. Sadatomi, A. Kawahara and Y. Sato* 463
Development of a phenomenological model for the prediction of dryout locations under flooding-limited critical heat flux conditions, *D.-H. Hwang and S.H. Chang* 475

A new critical heat flux model for liquid metals under low heat flux–low flow conditions, *S.H. Chang and Y.-B. Lee* 487
Volatile fission product and sodium release from liquids, *U. Brockmeier, M. Koch, H. Unger and W. Schütz* 499

Technical Engineering Notes
Performance of the base-isolated USC University Hospital under the 1994 Northridge earthquake, *G.W. Housner and S.F. Masri* 509
Fast calculations of the properties of superheated steam from the saturation curve up to 600°C and 30 MPa, *J. Pátek and O. Šifner* 515

Contents of Vol. 148 521

Author Index of Vol. 148 525

Subject Index of Vol. 148 529

Instructions to contributors 533